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25th Anniversary of Safe Drinking Water Act Celebrated

Science Behind Drinking Water Regulations Featured

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Research Triangle Park, NC, (October 20, 1999) In celebration of the 25th anniversary of the federal law to protect the nation's drinking water, a public open house will be held to present the state-of-the-science in drinking water research on Nov. 2 at the U.S. EPA's national research facilities in Research Triangle Park, NC. The Open House will be held from 9 a.m. - 3:30 p.m. at the Environmental Research Center, 86 T. W. Alexander Drive.

EPA research is being conducted for use by policy makers in developing new regulations required under 1996 amendments to the Safe Drinking Water Act, signed into law on Dec. 16, 1974. The law established the EPA as the designated organization to set national drinking water regulations.

For nearly 100 years, public water supplies have been treated with chlorine and other disinfectants to eliminate the risk of infectious disease. When properly maintained and operated, modern water treatment systems are considered to be highly effective in producing water that is safe for public consumption. Nevertheless, public health concerns are still being raised about various chemicals and microbial pathogens that can contaminate drinking water supplies. Three high priority health effects research areas are being highlighted at the Open House.

Health Risks of Microbial Contamination: The continued occurrence of waterborne disease outbreaks demonstrates that contamination of drinking water with pathogenic bacteria, viruses and parasites still poses a serious health risk when treatment is inadequate or contamination occurs during distribution. A 1993 outbreak of cryptosporidiosis in Milwaukee represents the largest documented occurrence of disease associated with treated public water supply in the U.S. EPA scientists are conducting research to evaluate the nature and magnitude of waterborne disease in the country. Research is also being conducted on new screening tools that can be used in field studies to evaluate human exposure to waterborne pathogens.

Health Risks of By-Products of Chlorinated Water: Concern has been raised that the chemical by-products that form in drinking water treated with chlorine and other disinfectants may pose health threats of their own. Studies in the laboratory and field have suggested that exposure to high doses of these chemicals may be associated with various

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adverse health effects, such as cancer and reproductive effects. EPA scientists are conducting research that will help to evaluate the risks of these disinfection by-products.

Health Risks of Arsenic in Drinking Water: Arsenic is a naturally-occurring contaminant of drinking water that has been associated with a number of serious adverse health effects in exposed populations throughout the world. EPA scientists are studying the risks of cancer and noncancer health effects in humans and animals that have been exposed to arsenic. Studies are also examining factors such as age, genetics and diet that may influence human susceptibility to arsenic. Biological models and biomarkers are being developed to study how arsenic affects the body, and to better determine exposure in humans.

The 8th Annual Open House is sponsored by the EPA's National Health and Environmental Effects Research Laboratory. The open house includes research presentations at a poster session. For an agenda or to register, call 919-541-0328 or register online at http://www.epa.gov/nheerl/openhouse. There is no charge.

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